

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

Discusses fuel, fuel combustion, furnaces, steam boilers and super-heaters, economizers, accessories, air preheaters, forced-draft installations, heat-control devices, water and water purification, treatment of steam boilers, heat balance of boiler units, plans for boiler operation and initial documentation, and stakhanovite-stokers. Intended to supply minimum technical information needed by stokers.

5. "Technical Operation of Electric Power Stations and Substations" (Tekhnicheskaya eksploatatskaya elektricheskikh stantsiy i podstantsiy), P. G. Grudinskiy, Moscow/Leningrad, 1949, 388 pp, 19 rubles.

States problems involved in organizing technical operations, servicing and repair of electrical equipment in stations and substations. Discusses heating conditions for machines and equipment, inspection and maintenance of insulation; machine vibration, rules for switching, operating conditions of stations and elimination of breakdowns.

6. "Hydroelectric Power Stations" (Gidroelektricheskiye Stantsii), F. F. Gubin, Gosenergoizdat, Moscow/Leningrad, 1949, 752 pp, 44 rubles 50 kopeks.

A systematic guidebook on the efficient use of water power. Describes: water power and its significance; basic structural and hydraulic characteristics of circuits for power utilization; regulation of discharge and power, choice of power for stations; foundations, spillways, and intake equipment of stations; pipelines and head gates; machine house and equipment; designs for hydrostations.

7. "Collection and Recovery of Condensates" (Sbor i vozvray kondensata), A. M. Dalin, Gosenergoizdat, Moscow/Leningrad, 1949, 239 pp, 11 rubles

Discusses: collection and recovery of condensates from consumers to heat sources, and by steam-pipe drainage; reduction of heat and condensate losses; removal of condensates from steam intakes; installation for collecting condensates from consumers and transporting them to station; steam-pipe drainage at the station; quality and purification of condensate; assembling and operating condensate systems. Data provided by Teploelektröproyekt, Orgres, VTI (All-Union Thermotechnical Institute), MEI (Moscow Power Engineering Institute), and other organizations, including leading electric power stations and factories.

8. "Operating Conditions in High-Voltage Distributing Installations" (Operativnaya rabota v vysokovol'tnykh raspredelitel'nykh ustroystvakh), Ye. F. Ioffe, Gosenergoizdat, Moscow/Leningrad, 1949, 55 pp, 2 rubles 40 kopeks.

Pamphlet, based on experience of one power station in operating distributing installations without a breakdown, discusses organization of operating conditions and switching methods. Analyzes "Regulations for Technical Operation." Gives many examples and recommendations for use of personnel of stations and substations.

9. "Regulating the Temperature of Superheated Steam" (Regulirovaniye temperatury peregretoogo para), Ye. M. Kazarnovskiy, Gosenergoizdat, Leningrad/Moscow, 1949, 111 pp, 6 rubles.

Analysis of methods of regulating temperature of superheated steam; temperature characteristics of superheaters; range of regulation; method of estimating types of cooling steam. Monograph, drawn mainly from data of IMZ (Leningrad Metallurgical Plant), Neva and Podol'sk plants, TsKTI (Central Boiler-Turbine Institute), and VTI and from material accumulated since 1947, is intended for electric power station personnel, designers, and advanced students.

- 2 -

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL
CONFIDENTIAL

50X1-HUM

10. "Insulation of Electric Machines" (Izolatsiya elektricheskikh mashin), V. I. Kalitvyanskiy, Gosenergoizdat, Moscow/Leningrad, 343 pp, 18 rubles.

Contains important information on: technology, classification, and construction of insulation; enameling, drying, and impregnating windings; testing insulations while mounting and repairing electric machines; electrical insulating materials and winding conductors; technology and insulation of windings and current-carrying machine parts. Data drawn from experience in Soviet electric machine building plants and machine operation.

11. "Steam Power Stations" (Teplovyye elektricheskiye stantsii), L. I. Kertselli, V. Ya. Ryzhkin, Gosenergoizdat, Moscow/Leningrad, 1949, 556 pp, 85 rubles.

States main problems involved in establishing efficient heat economy in accordance with planned socialist economy of USSR, especially in theory and design of modern steam power stations; methods of saving heat in various types of stations; arrangement of plant and parts; installations and equipment for economical heating; management, technical, and economical indexes of operation.

12. "Repair of Electric Machines" (Remont elektricheskikh mashin), Ye M. Kovarskiy, Gosenergoizdat, Moscow/Leningrad, 1949, 174 pp, 8 rubles.

Examines: methods of detecting troubles in DC and AC machines and technology of all stages of repairs; dismantling and assembling machines; drying and impregnating windings; repairing stator windings of AC machines, armature and rotor windings, commutators and brush holders.

13. "Electric Machines" (Elektricheskiye mashiny), M. P. Kostenko. Gosenergoizdat, Leningrad/Moscow, 1949, 712 pp, 35 rubles 25 kopeks.

Discusses: complex processes common to many electric machines; special types of machines, circuits and transformers; special windings; commutator problems; locus theory and theory of equivalent circuits of AC machines; transient phenomena in electric machines; losses in machines and transformers; rectifiers.

14. "Communication and Signaling in Electric Power Stations and Substations" (Svaz' i signalizatsiya na elektrostantsiyakh i podstantsiyakh), V. V. Kulikov, Gosenergoizdat, Moscow/Leningrad, 1949, 272 pp, 10 rubles.

Cites fundamental opinions on organizing communications and signaling techniques in stations and substations. Discusses supply sources, line equipment and problems connected with installing and servicing equipment.

15. "Manual for Installing Distributing Equipment" (Spravochnik po montazhu raspreditel'nykh ustroystv), P. V. Kuznetsov, V. S. Kondakhchan, Gosenergoizdat, Moscow/Leningrad, 1949, 588 pp, 40 rubles.

Gives information on distributing equipment of electric power stations, regional substations, and large factory substations. Intended for assemblers of distributing installations, book is based in suggestions and instructions of Ministry of Electric Power Stations, assembly organizations, plants, and GOST, and on experience of assembly enterprises.

16. "Theoretical Electrical Engineering" (Teoreticheskaya elektrotehnika), N. N. Mansurov, V. S. Popov, Gosenergoizdat, Moscow/Leningrad, 1949, 485 pp, 10 rubles 60 kopeks.

Discusses physical processes in electric and magnetic fields and in linear and nonlinear circuits during flow of direct and alternating currents, and principal methods of calculation. States many problems with explanation of solution.

- 3 -

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

CONFIDENTIAL

50X1-HUM

17. "Preventive Measures Against Water Tower Freezing" (Meropriyatiya po ustraneniyu obmerzaniya gradiren), compiled by Southern State Trust for Organization of Regional Electric Power Stations, Gosenergoizdat, Leningrad/Moscow, 1949, 20 pp, 1 ruble 25 kopeks.

Describes freezing of water towers and practical preventive measures: steam and rain screens, washing towers with hot water, air supply by separate channels, method of switching water tower over to central sprinkler section, etc.; cooling effect of water tower under winter conditions.

18. "Fundamentals of Heat Transmission" (Osnovy teploperedachi), M. A. Mikheyev, Gosenergoizdat, Moscow/Leningrad, 1949, 396 pp, 15 rubles 50 kopeks.

States physical bases of heat exchange and their application to analysis of heating installation operations. Discusses: heat conductivity under stationary conditions, convective heat exchange, heat losses during free flow of liquids and changes in the composite state of the liquid; heat emission, transmission, and conductivity under nonstationary conditions; calculations for heat-exchange apparatus, miniature scale operation; and individual heat transfer problems. Recommended as textbook for higher technical schools.

19. "Manufacture of Communications Cables" (Proizvodstvo kabeley svazi), M. Yu. Posherstnik, N. G. Turkin, Gosenergoizdat, Leningrad/Moscow, 1949, 135 pp, 4 rubles 15 kopeks.

Discusses basic cable materials; gives electrical characteristics of communications cables; describes construction, application, and testing of cables, and types of high-frequency cables. Valuable for operating personnel of cable communication systems.

20. "Regulations for Erecting Electrotechnical Installations" (Pravila ustroystva elektrotekhnicheskikh ustanovok), Gosenergoizdat, Moscow/Leningrad, 1949, 319 pp, 18 rubles.

Instructions on designing electrical systems. Discusses: electricity supply for industrial enterprises; distributing installations and substations with voltage higher than 1,000 v; industrial transformer substations with mercury rectifiers; distributing equipment for voltages up to 1,000 v; electric motors and accessories; lighting apparatus; cable lines for voltage of 35 v or less; overhead lines for 1,000 v or over; electric power calculations.

21. "Boris Semenovitch Yakobi," M. I. Radovskiy, Gosenergoizdat, Moscow/Leningrad, 1949, 136 pp, 4 rubles 55 kopeks.

Early life of Yakobi; beginning of his work on "magnetic motors"; invention of galvanoplastics; electric telegraph; work on metrology. List of his works.

22. "Automatic Control" (Avtomaticheskii kontrol'), F. Ye. Temnikov, VNITO (All-Union Scientific and Technical Society) of Printers and Publishers, Moscow, 1949, 117 pp. gratis.

Formulates general principles; generalizes experience; suggests certain lines for development of automatic control techniques. Discusses amplitude and pulse systems of automatic control, signaling apparatus, indicators, recorders, and sorting devices. Gives examples of most important technical principles and various installations.

- E N D -

- 4 -

CONFIDENTIAL

CONFIDENTIAL